# 1-Dimensional Bar Code Layout

The 1-D bar code of nine characters plus leading and trailing asterisks is described here. (The asterisks are not part of the 1-D value, but part of the Code 39 characteristics).

| 1-D Bar Code Schema | | | | |
|---|---|---|---|---|
| *122234555* | | | | |
| Field | Name | Characters | Value | Misc. |
| 1 | Year | 1 | "8" | Year of form (Revision Year) |
| 2 | Form ID | 3 | IDOR assigned values | ID's currently found on specs listed for each form. Currently numeric. |
| 3 | Form Revision | 1 | | Alphanumeric ranging from 0 (original release) – Z that is assigned sequentially by the vendor provides 36 revisions annually. |
| 4 | Page Number | 1 | Page number for form or schedule. | Physical page, Alphanumeric ranging 1-Z supporting up to a 35 page form |
| 5 | Vendor ID | 3 | Four digit developer Scanline ID# assigned by IDOR and then expressed as a base-36 value for the Vendor ID#. | Forms should carry the 3 digit Vendor ID#. For ST-1 and ST-14 developers will use the four digit Developer Scanline ID# to generate check digits. |

The following are the 1-D parameters:
1) Code 39 symbology
2) Nine characters (not including the start and stop asterisk)
3) 2.5:1 wide narrow ratio
4) Height 1/4 inch (.250 inches) (24 points)
5) Width 1.447 inches.
6) An alphanumeric version of the 1-D bar code may appear below the bar code for readability
7) "X" dimension (the narrowest bar and/or space) must be at least 1.5 pts (approximately 20 mils or 3/144 ")
8) Each bar in the bar code must be solid. Streaks in the bar code are unacceptable.
9) A ¼" quiet zone around the bar code must be maintained (the bottom edge can have one print line (approximately 3/16") of space below it)

# Form Registration Marks

In addition to requiring the 1-D bar code for form identification a minimum of 3 "Registration Marks" are required on each page.

The scanning equipment looks for right-angled registration marks, printed on the form. Exact placement of the registration marks is required. The vertical and horizontal edges of the registration marks must be the same length of .25 inches long and .0305 inches thick.

The following table contains examples of standard registration marks in the first 2 rows, an example of a custom registration mark in the third row and the solid circle printed in black ink in the last row:

| Registration Marks | | | | |
|---|---|---|---|---|
| L-Shaped | ⌐ Upper Left | ¬ Upper Right | ∟ Lower Left | ⌐ Lower Right | |
| T-Shaped | T Straight T | ⊥ Inverted T | ⊢ Left T | ⊣ Right T | + Cross |
| Custom T | | ⊥T Stylized IL | | | |
| Solid Circle | ● | | | | |

The preferred registration marks are the L-Shaped marks with the preferred placement being at the corresponding corners of the form 1/2 inch from the paper edges.   Regardless of the registration marks used, they should be in separate quadrants of the page.  While a minimum of 2 registration marks at diagonals are required to adjust the image alignment for skew (rotation along the horizontal and vertical axis), a third registration mark is required in order to adjust for image distortion.  The best use of registration marks is to use 4 L-Shaped marks, 1 in each corner of the page.

The registration marks should have ¼ inch of white space surrounding the mark for best results.  White space is defined as an area free of non-dropout markings or text. The use of dropout colors is therefore permitted within white space.  Note that when designing Black & White forms, a gray at 20% or less can be used as a dropout gray and still qualify as a B&W or Grayscale form.

When designing a form, you should avoid placing near the registration marks any boxes or other design elements which could be confused with registration marks.